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A Talk About Peach Culture,

At the Delaware Fruit Growers' Society.

Mr. J. B. Fennimore recommended shallow plowing, and constant working throughout the season; recommends October and May plowing, not quite three inches deep.

Mr. Isaac Parsons recommended early spring plowing for the growth of wood, but October and May plowing for productiveness of trees.

Mr. Edwin Wilmer has a peach orchard in charge which he plowed last October, trimmed very heavily this spring, plowed in March, and seeded down with oats. The trees are about six or seven years old, and will average two and a half baskets to a tree. Mr. Wilmer had the earth thrown from the trees during both plowings; he now intends to plow again and throw the earth to the trees.

Mr. Robert Nicholson has been engaged in cultivating the peach for nineteen years, and has made various experiments in plowing and cultivating orchards; his experience has brought him to the conclusion that October is the best month for plowing. Whether the benefit arises from throwing the insect on the surface and many of them being destroyed, and the ground being pulverized by the winter frosts, and settled around the roots, he is not prepared to say, but the effect he has observed.

Light or shoal spring plowing and cultivating down, following the previous fall plowing, is very beneficial to trees. Fall plowing seems to delay or backen the buds in spring, and thus the early frosts are avoided in some measure.

Mr. James Shuster, engaged twenty-six years in orchards, thought the trees should be plowed as early as possible in the spring, if not practicable, postpone till June—plow shoal. Plow in autumn while vegetation is green. Has made the experiment of salting trees; to young trees half a pint; if three years old a pint, &c. After early plowing, the trees should be kept well trimmed until three years old; after that time but little, except thinning out the branches where fruit cannot grow, but never trim except when the tree is in leaf.

Mr. Richard Semans has an orchard rising three years old—has kept well trimmed and is of rapid growth. It was materially affected by the frost in May, and the manner is unaccountable. In the middle of the orchard two rows of trees were unaffected by the frost—the residue materially injured—leaves had the appearance of being parched, and fell off. Examined the trees through a microscope, and ascertained that it was the frost and not an insect that had done the injury.

Mr. Daniel Corbitt—does not trim till two years old; after that thin them considerably; thinks the side shoot sustain the body.

Mr. Semans—trimming before the sap starts causes the tree to decay; the wounds do not heal soon. If trimmed in May or June they heal immediately.

A majority of the meeting thought the trees should be trimmed while growing.

Mr. Fennimore thinks "worming" necessary, and "worms" twice, in May and September.

Mr. Griffeth thinks gas tar applied to the body near the soil is a preventive to borers. Applied to old trees, affected with many worms four years ago; has discovered no worms since.

Mr. Semans worms the trees by taking the dirt from them the first of May; examines for the worm with a knife where the gum oozes.—When trees were four years old, after removing

soil, applied quick lime and strong pickle mixed; put it on with a mop; first scraped the rough bark off. Quite successful, only a small number of worms afterwards found.

Mr. D. B. Stewart has applied coal ashes successfully against the borer.

R. H. Cummings applied air-slaked lime around the collar of the tree, half a peck to each, and found it beneficial.

Mr. Semans has found (wood?) ashes the best fertilizer for young trees; removes the earth from around the collar of the tree and applies a shovel full.

Mr. Fennimore thinks there is nothing better than ashes as a fertilizer, half a gallon to a tree. Mr. Fennimore thinks the best ten kinds for cultivation and market are: Troth's Early Red, Early York, Yellow Rare Ripe, Crawford's Early, Moore's Favorite, Mixon Free, Ward's Late Free, Fox's Seedling, Crawford's Late and Smock.

Fruit Growing in Southern Illinois.

[Dr. Meeker of Cario, Ill., writes to the Farmer's Club, of the Am. Institute concerning the fruit business in the vicinity of South Pass:]

Ten miles above Cario, the Illinois Central Railroad enters a hilly country, and thirty miles further north, the hills are from 200 to 500 feet high. Usually there is enough level ground on top for common-sized farms. The passenger sees tasteful cottages standing on lofty eminences and on the edge of jutting crags. What at a distance seem rows of corn, would, upon near approach prove to be rows of fruit trees. At the stations, boys offer for sale pears and beautiful peaches. And yet no part of Arkansas contains a people more deeply in sympathy with the rebels in their attempt to destroy this Government, than are a majority of the people in some of these counties.

At South Pass, Union Co., 40 miles from Cario, live some twenty fruit-growers, each having from 20 to 80 acres of peaches, pears and apples. They understand their business well, and they are distinguished by the Yankee characteristics of industry, shrewdness, and intelligence. The natives know they are not cowards, and they know what cowardice is.

Within the distance of a few miles around this place, I estimate that there are from 700 to 800 acres of peach trees. Two or three car loads of the nicest peaches you ever saw leave by special train for Chicago; the receipts of the owners of these orchards range from $10 to $300 a day each. The season will last from fifteen to thirty days. Some have contracted for their entire crop at $2 a bushel, delivered at the station. The prices would be 30 per cent higher, if change were plenty.

The natives are astonished, and they are going to raise fruit. For the most part they will do nothing; they do not know enough to raise fruit. One may think he knows how but that does not help the matter. The greatest obstacle which prevents many from succeeding, is the competition they meet with in men who know more than they do. Industry is truly important, but alone it will not win. Still it is by no means difficult to raise fruit. I think that frequent visits to the best orchards, and a good share of common sense, will enable one to succeed. If he do fail, he will be a fool if he does not try till success crowns his efforts.

Still, from various causes, not more than a quarter of the fruit trees set out in our country will amount to much. The price of fruit has advanced during the last twenty years. In twenty years more, if fruit growers are very industrious, and if too many children are not born, common people may be able to buy early fruit; and early fruit may be raised as easily as late fruit. A man who works right, can afford to work for less than one who works wrong. That is, if he have the product of his industry to dispose of.

Let a wide-awake Yankee come hither and set out well-known good varieties, and he will do well. He will want ten or forty acres, of good high land. Ten acres will do as well as forty for many men. At South Pass, suitable sites sell from $20 to $30 per acre. When covered with bearing trees, they easily sell for $100 an acre. There are farms which can be sold for $150 an acre, and the trees are only four years old. They make the trees bear at this age, often sooner. I saw trees two years from the bud for which $5 were given for the fruit from each tree. South of the point named, good improved farms near stations, and where peaches never fail, can be bought for $15 an acre. I know of twenty or thirty such chances. The railroad will sell suitable land, mostly timber, for less, and give long time. They offer every inducement to fruit growers. The freight that is paid them for an acre of peaches exceeds what they get for what is paid for a hundred acres of wheat. The receipts from five acres of peach trees in full bearing will buy a good farm.

Pears do well here; so do apples and strawberries. Plums, cherries, and currants do poorly. Grapes are uncertain; they rot. One man expected to have twenty tuns; he hopes to have two.

Much disappointment is felt regarding certain varieties of peaches. The early York, serrate, was supposed to be the earliest and best; it rotted. One man makes his loss $3,000 by the early York, and yet his receipts will reach $500. The early Troth rots. Crawfords early is the finest peach, but it is so large that it does not retail at a profit, and it is a shy bearer. The first shipments were the early Tillotson, which was about the 18th inst. The peach which ripens first is wormy; it ripens first because it is stung. The peach which now is esteemed most for the qualities of earliness, size, and color is the Honest John of New Jersey, and Western New York. The fruit is full size, fair color mostly red, flavor good.

Some wishing to come hither would like to know how much money they ought to have. I consider myself posted on this head. I answer that with two to five hundred dollars you can start yourself handsomely. With five hundred dollars one can do well. Some have commenced with less. But, whatever you have, you must have earned it at some kind of labor or honest business. If you come by it without labor, you probably will lose it. If you have been brought up idly, and have no money but what is given you, put it out at interest, and then come and support yourself a year or so by day's work, when you can safely use it. The kind of business you have been accustomed to is comparatively of little consequence. If one can walk to the East, he can walk to the West. Some have nothing to come with. It is difficult to advise them. Industry and patience will go far. If one has a family and no money, what can he do? Still, fair intelligence being given, one can work wonders, providing he only has the constitution of a horse and the energy of a lion.—Such can get money anywhere. These are the conditions.

Some will want to know whether we have any ague and game. We have some of the first, Ayer's ague cure soon disposes of it; and we have less of the latter. However, bring a gun. If you cannot well do this, carry a lot of percussion caps loose in your vest pocket or buy a pair of light bullet moulds, and keep them bright by rubbing them in your fingers when in company.

How to Plant an Orchard.

I noticed an article in a late No. of your paper from the pen of S. Burnet, of Ind., upon the above subject. Now Mr. Burnet may be more of an orchardist than myself, but I cannot concede to his plan of setting trees in dead furrows. I do think that it is not in accordance with the laws of nature. We know that corn or potatoes planted there will not grow; it is the same with all other plants.

My plan would be to plow deep, as he says but to plant on the ridges, for there we have two depths of soil. Then again, we would be freed from water, which in dead furrows always more or less collects. Some four years ago, I set some trees on the bank of a ditch, which grew finely evidently knowing the difference between that and the bottom of the ditch.—J. N. Clark, Marion Co., 1862.

What are Trees made of?

If we were to take up a handful of soil and examine it under the microscope, we should probably find it to contain a number of fragments of wood, small broken peices of branches or leaves, or other parts of the tree. If we could examine it chemically, we should find yet more strikingly that it was nearly the same as wood in its composition. Perhaps then, it may be said, the young plant obtains its wood from the earth in which it grows. The following experiment will show whether this conjecture is correct or not. Two hundred pounds of earth were dried in an oven, and afterwards put into a large earthen vessel; the earth was then moistened with rain-water, and a willow tree, weighing five pounds, was planted therein. During the space of five years the earth was carefully watered with rain water. The willow grew and flourished, and to prevent the earth from being mixed with fresh, being blown upon it by winds it was covered with a metal plate full of very minute holes, which would exclude everything but air from getting across the earth below it. After growing in the earth for five years, the tree was removed, and on being weighed was found to have gained one hundred and sixty-four pounds. And this estimate did not include the weight of the leaves or dead branches which in five years fell from the tree.

Now came the application of the test. Was all this obtained from the earth? It had not sensibly diminished; but in order to make the experiment conclusive, it was again dried in an

oven and put in the balance. Astonishing was the result—the earth weighed only two ounces less than it did when the willow was first planted in it! yet the tree had gained *one hundred and sixty-four pounds.* Manifestly, then, the wood thus gained in the space of time was *not* obtained from the earth; we are therefore obliged to repeat our question, where does the wood come from? We are left with only two alternatives, the water with which it was refreshed, or the air in which it lived. It can be clearly shown that it was not due to the water; we are consequently unable to resist the perplexing and wonderful conclusion—it was derived from the *air.*

Can it be? Were those great ocean spaces of wood, which are as old as man's introduction into Eden, and wave in their vast and solitary luxuriance over the fertile hills and plains of South America, were all these obtained from the thin air? Were the particles which unite to form our battle-ships, Old England's walls of wood, ever born the world about, not only on wings of air, but air themselves? Was the firm table on which I rest, the solid floor on which I dwell, once in a form which I could not as much as lay my finger on, and grasp in my hand? Wonderful truth! all this is air.—*Eng. Paper.*

Apple Pomace for Orchard Manure.

M. Frere Henry, of Rennes, France, in an article recently communicated to the *Abeille Pomologique,* mentions the following interesting facts:

For fifteen years he remarked that apple trees, the lower part of whose stems were covered with cider pressings, spreading out from a large adjoing heap of that material, made double and treble the growth of trees that were not so circumstanced.

More recently, between old and extremely exhausted willow stools, there was spread about nine inches thick of old marc, or cider pressings. In the same year of the application this produced an ordinary effect. Those willow stools, which for many years had produced only weak twigs, scarcely worth the expense of cutting, pushed with great vigor, and have since continued to do so. In consequence of these observations, he determined on turning to account, as manure for fruit trees, an enormous heap of marc which blocked up the way. He asked the opinion of some fruit growers, but they said the marc would burn the roots. However, in the beginning of February, observing that the pips were beginning to germinate all over the surface of the heap, he concluded that if the radicals of the embryo were not burned, it was not likely the older roots would be injured, and did not hesitate to apply the manure to four hundred apple and pear trees, in the following manner:

In February, 1859, he removed the soil from around trees, trained as pyramids and as vases, to the distance of a radius of twenty-one inches and as deep as the principal upper roots. He then put to each tree three or four forkfuls of marc, pressing it down with the foot, and covering it slightly with a portion of the removed soil, the remainder of which was spread on the border. As marc is very retentive of moisture, and at the same time a good conductor of heat, which was excessive in 1859, numerous roots were speedily formed in its slowly decomposing substance. "Even this year," says Mr. Henry, "although rather colder than usual, the effect of the impulse given as above to vegetation is remarkably apparent. The stems of the fruit trees have become clear of Lichens and Moss; and latent buds, from the abundant flow of sap, were readily developed on making an incision where branches were wanted to be called into existence. Bad growers, such as the Mouille-bouche and Bezi de Caissoy pears, were thus made to present a regular vegetation.

"But a fact to which I would wish more particularly to draw attention is, that some delicate varieties of which the fruit is apt to crack, for example, the Beurre d'Aremberg, or Glout-Morceau, Doyenne Roux, Beurre Gris, &c., now produce fruit perfectly smooth and sound.

In conclusion, I am justified, by my own experience, in saying that I can confidently recommend the use of the marc of apple as a manure for fruit trees, and thus turn to good account a substance which many allow to go to waste, not even taking the trouble to mix it with the dung in the manure heaps.

"Before using the marc it would probably be advisable to throw it up in a large heap, so as to induce fermentation in order to disengage certain acid or other principles; and then apply it to the trees when germination of the pips takes place, that is, in the month of February. Fruit trees in gardens, and, doubtless, also those in fields, treated as above detailed, would repay the labor a hundred-fold.

The Bible is a window in this prison of hope, through which we look into eternity.

PRESERVING DAHLIA ROOTS.—May I be permitted to offer a simple suggestion relative to the preservation of Dahlia roots during the winter? Though carefully dried before storing away in the autumn, I used continually to lose them by the rotting of the crown, till at length the idea one day occurred to me that the mischief was occasioned through the decay of the long stalk left attached to the tubers: this becoming partially charged with fluid kept the crown constantly wet. My remedy has been not to leave more than four inches of stalk; from this to scrape the whole of the outer covering or bark, and at the base to make a small opening which permits any watery deposit to escape. The result has been that I have preserved the whole of my tubers, while experienced gardeners around me have complained of loss, notwithstanding that every precaution from damp or frost had been taken.—*Cottage Gardener.*

The Garden.

Garden and Fruit Talk.

AT THE FARMERS CLUB, AM. INST., N. Y., AUG. 5.

What must be done to our garden lots when worms of various kinds infest the soil and repeatedly destroy whatever is sown and planted?

Adrian Bergen, of Long Island—I would plow deep, late in Autumn, for one thing.

Wm. S. Carpenter—I would spade the ground in ridges in Autumn, and apply salt and lime in Spring.

R. G. Pardee—The worms were troublesome in my garden last year, and I watched for the last day that I could spade before freezing.—That night the newly-spaded earth froze solid, and finished off the worms effectually. I have no doubt it saved my crop of grapes this year.

Wm. S. Carpenter—I reccommend gas lime, as well as exposing the soil to freezing. But it must be used carefully, where there are any shrubs or plants, or it will kill them. I think it will kill worms. I am sure salt will, and so it will vegetation, as I have experienced to my cost, by having a man put it where he was told not to put it. I have been using a new fertilizer last year that is also death to everything it comes in contact with, until it is decomposed. Then it is a very valuable ingredient. This is printer's-roller composition. It must be used with as much caution as guano, salt, or lime.

Dr. Parker made some inquiries about graft-grape vines, and was answered by Mr. Carpenter, as follows: The best way to graft a grape vine is to drive wedges through a vine. at intervals of say a foot, and sharpen the scions and drive them through so they will project on the under side. Then lay the vine down and cover it in a trench, extending from the root so that water will not stand in it, leaving the extremity of the vine out to grow its own branches and leaves, and the grafts will also grow and form roots and leaves, and next Spring the whole can be taken up and cut apart, and set where the vines are to grow.

Blackberry Wine.—The blackberry wine presented by Mrs. Ham, and much admired, was made as follows: 1 quart of juice; 2 quarts of water; 2 lbs. of sugar, fermented in casks and drawn into bottles, corked and sealed, and kept two years.

Blackberry Cordial for Soldiers.—A friend of the sick soldiers writes from Connecticut to urge the necessity of providing our troops with the various preparations of the blackberry.—Not a berry should be allowed to waste. Let our young people make it their business to collect all in their vicinity. When necessary, sugar brandy, and spices can be furnished by the various Soldier Aid Societies, and sirups, cordials, wines, jams, etc., might be furnished in large quantaties. A good recipe is: 1 quart of juice; 1 pint of water; 1 pound of sugar; spices; mixture allowed to boil; when cool, add half pint brandy. Old cheese and pepper pickles are much needed, and would tend to diminish the amount of sickness fearfully prevalent.

Mr. S. Carpeater—I will name another good diarrhea medicine. Saturate good cider vinegar with salt, and take a wine-glass full. One glass will generally cure.

The Fruit Question.—Fruits in their season, and conversation about fruits, with samples, is a standing question.

Wm. S. Carpenter remarked that the Red Astracan apple is not only beautiful to look at, as may be seen, but it is a profuse bearer, and valuable market-apple; good for cooking, and a fair table apple. It ripens about August 10. Here is the Early Harvest and Red Margueritе, and Sweet Bough, all good apples, now in season. Several others were in the collection. and the Beurre, Gifford, Madeline and Doyenne pears. The Red Astracan apples were grown upon dwarf trees, only about two feet high.

The following item in regard to preserving fruit is taken from a London paper:

To preserve fruit all the year round.—Take of saltpeter, 1 pound; bole ammonia, 2 pounds, common sand, well freed from its earthy parts, 4 pounds; mix all well together. Gather the fruit with the hand, before it is thoroughly ripe, each fruit being handled only by the stalk; lay them regularly, and in order, in a large wide-mouthed vessel; cover the top of the glass with an oiled paper, carry into a dry place, set it in a box filled all round to about four inches thickness with the above preparation, so that no part of the glass vessel shall appear—being in a manner, buried in the prepared mitre. At the end of a year, such fruits may be taken out as beautiful as when first put in.

Raspberries.—Considerable conversation was had about raspberries. Mr. Carpenter said that he had about concluded to eradicate all from his garden but Brinckle's Orange. The others are more plague than profit.

The Chairman.—I like the Franconia very well, indeed. The Allen I would not have.

Solon Robison.—I received as presents from several nurserymen and friends, several sorts of raspberries, which I planted, partly along the north side of a wall, and partly in the open ground in the garden. I have no fault to find with the growth of vines, for they are overwhelming But I have some fault to find with their productiveness. I wish they were all, except the Brinckle, out of my garden.

The Flower Garden.

When White Lilies, or any other spring flowered bulbous plants have done flowering, and the stems died away, they should be taken up and re-set; the disease in Lilies often met with is probably caused by their being too long in one place.

Most of what is to be done now in this department consists of the routine duties of neatness, tying up, pegging down, removing faded blossoms, collecting and destroying insects, etc. Many suffer their flowers to produce seed, but this injures the flowering. If it be particularly desirable to save seed of some things, allow only just as much to ripen as will be needed. In some cases, cutting off the flowers as fast as they fade, doubles the season of flowers.

Auriculas, Polyanthus, Pansies, Daisies, and other of these early flowering, half hardy plants, commence their root growth about the end of this month, when the time has arrived for re-planting. Good, fresh, and yet half decayed, sod from a pasture field, is the best to grow them in. Those who have the advantage of pots and frames, can re-pot at this season.—*Gardener's Monthly*

Fruit Garden.

Take out the canes of the raspberrry and blackberry that have borne fruit—and thin out all suckers except those intended to produce fruit the next season. Many growers go over their rows at this season, and shorten off about one-fourth of the cane with a pair of shears. They say it increases the productiveness, which we think likely; but we would not do so till the end of the month, when there will be less danger of the eyes bursting, which will defeat the object.

Strawberries grown in hills should have their runners cut off as they appear; and those grown in beds be thinned out considerably.

August and September are favorite months to plant out strawberries, with those who desire a crop of fruit the next season. In making a strawberry-bed, a warm, dry spot of ground should be chosen, with, if possible, a good loamy or clayey subsoil. A moist, wet situation is very unfavorable. It is best to subsoil at least two feet deep, and if the soil is poor, let it be well enriched with well-decayed stable manure. In setting out, take care that the plants do not become dry from the time they are taken up till they are re-planted, and see that they do not wither afterwards. Many persons cut off the leaves, if they are afraid of their wilting under hot suns, but a much better plan is to shade. Inverted four-inch flower-pots are excellent for this purpose; they may be taken off at night. The dews will so invigorate them, that the shade will only be required for a few days. Sometimes in September they may need a good watering; but this should never be attempted unless a thorough saturation of the bed is given; and in a few days after, the hoe and rake should be employed to loosen and level the surface, which the heavy waterings, in all probability, have caused to bake and become crusty. Where time can be spared to layer a few plants into three-inch pots, they are very successfully transplanted afterwards, and much after labor in watering and shading avoided.—*Gardener's Monthly.*

Flowers for the People.

Sir Farmer, with your broad acres, and your well-stored barns, why have you "no room" and "no time" to devote to flowers? Do you not know that you are stinting your soul? No man has stronger reasons than you for surrounding his home with these fairy-like adornings; no man has greater facilities for doing so; no man can afford it better. Occupy, then, some of your leisure moments in laying the foundations for one or two flower-plots and planting them.—The gorgeous draperies which they shall weave for themselves while you are absent in the toil-some days of sowing and harvesting, will make home attractive to your children, and will help to educate them, whether sensibly or insensibly to themselves or to you. Besides, flowers are so bountiful in their gratitude—they give such rich rewards for trifling pains! It is but little they ask at your hands: the sunbeam paints their brilliant colors, the dew and the night give them vigor and freshness, and earth and air hold for them unfailing stores of life and strength.

And to you my poor seamstress, stitching away your life in your narrow garret, I have no need to say, "Why have you no garden?" The rapid *stitch, stitch* of your needle answers my question before it is asked; and yet the little box of mignonette in your window tells more plainly than words could do how God has implanted a love of the beautiful in your heart, and how that love will thrust itself forward and make itself seen and known in spite of your hard dreary life. Those little flower-stalks, spindling and sickly though they seem to more favored eyes, are to you as a well of water, to the traveler in the desert. Cherish your pale flowers, my poor child! Watch them, and tend them, and inhale their sweet breath, and they shall be to your youth and innocence a triple shield. Add a scarlet morning-glory, and train it over your window, make room in one corner for a bright verbena, and they will gladden and refresh heart and eye in many a weary day of your pilgrimage.

Among all the dwellers in our villages and country towns, with greater or less facilities for the cultivation of flowers, how many give their lawful proportion toward beautifying the earth? How many, who, having once begun to give attention to floriculture, would not rest satisfied with ordinary attainments, never begin for the want of a little direction, or the right stimulus? Thousands who long for flowers, and have a vague idea that the gratification of their longing involves an indefinite amount of digging, raking and watering, are waiting patiently, year after year, for the day when they shall "have time." My dear sir or madam, take time—take it now. Do your part toward beautifying so much of God's earth as he has intrusted to your care. You owe the little effort to yourself your children, and your friends and neighbors.

The millionaire, if he chooses, can hire a professed florist to care for his flowers, and pay the penalty by asking his royal permission to pluck a rosebud; but you thousands of men and women of moderate means all over our land listen:—If you have no piece of ground which you can devote to flowers, procure one if possible; see that it is well dug and pulverized; made light with sand, and enriched with good loam and fertilizers; let such part of it as you can devote to seedling perennials be made into beds and nicely raked over; then sow the seeds at once, ond the young plants will thrive and gain strength to resist the cold of winter, and next June they will give you a joyous greeting, and gladden and beautify your home. Then in September you can plant bulbs for the early spring bloom, and hardy annuals; and later still, shrubs and vines for the summer months. —*Cor. N. Y. Independent.*

The Vineyard.

Grape Growers' Maxims.

1. Prepare ground in the Fall, plant in the Spring.

2. Give the vine plenty manure, old and well decomposed; for fresh manure excites growth, but does not mature it.

3. Luxuriant growth does not always insure fruit.

4. Dig deep, but plant shallow.

5. Young vines produce beautiful fruit, but old vines produce the richest.

6. Prune in the Autumn to promote growth, but in the Spring to insure fruitfulness.

7. Plant your vines before you put up trellises.

8. Vines, like soldiers, should have good arms.

9. Prune spurs to one well-developed bud, for the nearer the old wood the higher flavored the fruit.

10. Those who prune long must soon climb.

11. Vine leaves love the sun; the fruit, the shade.

12. Every leaf has a bud at its base, and either a bunch of fruit or a tendril opposite to it.

13. A tendril is an abortive fruit bunch, a bunch of fruit a productive tendril.

14. A bunch of grapes without a healthy leaf opposite, is like a ship at sea without a rudder, it can't come to port.

15. Laterals are like some politicians; if not often checked, they are the worst of thieves.

16. Good grapes are like gold; no one has enough.

17. The earliest grape will keep the longest; for that which is fully matured is easily preserved.

18. Grape eaters are long livers.

19. He who buys the new and untried varieties should remember that the seller's maxim is *Caveat emptor*—Let the buyer look out for himself.—*New Jersey Herald.*

An Acarus on Evergreens.

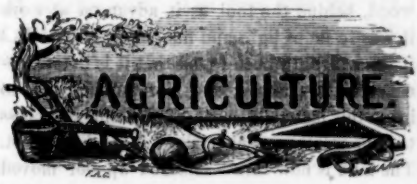
A few days ago, I observed that a large specimen of the Chinese Arbor Vitæ—*Biota orientalis* in my garden, presented a peculiar sickly appearance. On examination, every branchlet, leaf and fruit was found covered with a very fine web, like that of some spiders, and which extended between the spray, involving the scale-like foliage in a common net work. The dry weather of the previous week had covered the plant with dust from the street, thus making the web more apparent. At a few yards distant, the tree appeared covered with a mould, like that which often grows upon decaying matter, such as flour paste that is kept too long. On close inspection, this web proved to be the work of a small spider-like animal belonging to the suborder *Acarina*, family *Trombidina*, but to which of the seven generata composing this family, I am unable to state. That it is closely allied to the red spider *Erythraeus telarius*, so injurious to greenhouse plants that are kept too dry, and that is also found during dry summers on our currant and other bushes, is evident; like it, this is very small and can scarcely be seen by the eye without the aid of a magnifying glass.

The present species feeds like the red-spider by puncturing the surface of the leaves, fruit and branches, and sucking the juices, thus depriving the plant of its sap. From appearances this, also in common with other acarae, injects a poison—probably to make the sap flow more freely—and thus vitiates the life blood of the plant, that weakened at the same time by depletion, will ere long succumb to the attacks of its minute foe. A small male red cedar—*Juniperus Virginianus*, growing a short distance from the arbor vitæ, is also infested with this acarus, and its leading shoot is apparently dead; but it has not appeared on Swedish juniper, common savin, pine, hemlock or spruce in luxuriant growth, close beside the infested trees. Damp weather always destroys the red spider, but seems not to have the same desirable effect on this species; in fact, the web protects the animal from the effects of rain or dew. Fumigation will probably prove most efficacious, but with large specimens it will be difficult of application. I shall try a few experiments soon.

The length of this species is from one to two hundredths of an inch; legs eight; abdomen large, widest behind. Color of head, body and limbs, a translucent creamy white; abdomen dark brown, with triangular spot of the same color as the body.—J. Kirkpatrick, Cleveland, Aug. 15th, 1862.

Field Pests.—Pennsylvania has a law to prevent Canada thistles from seeding. It is finable, $10 for each complaint, for an individual or corporation to allow any of the seeds of this pestiferous weed to ripen upon their premises. Railroad superintendents will do well to bear this law in mind, as well as farmers, and we hope that every one will be held to a rigid observance of it. For three years, we have made war upon all thistles, both in the field and along the roadside; and we pursue the same course with dock and burdock. We have also nearly got rid of ox-eye daisy. This we attribute to the copious use of salt. Canada thistles by the roadside are a great nuisance; but not so great as the indolent, untidy, careless fellow who permits them to grow along his fences to seed his neighbor's land.—*N. Y. Tribune.*

Ants, (S.)—They may be destroyed by pouring hot water on their nests.



Preparation and Application of Barn-Yard Manure.

The best manner of preparing and applying barn-yard manure was one of the subjects discussed at one of the Evening Meetings of the New York State Agricultural Society last fall at Watertown. One of the most important points in that discussion, was to settle what each of the speakers meant by *barn-yard manure.*—Some man who devoted all his farm to the support of cows, would protest against moving manure from the sheds and piling it out in the sun and rain to be evaporated or leached out, and thus a large part of its value wasted. Another, who was a grain raiser, was quite as confident that if it was left in the sheds, it would fire-fang and decay slowly, and suffer greatly. These men did not understand each other, simply because each judged of the matter by the circumstances that surrounded himself. The man of cows had little straw or anything else to litter down his stables, and thus his manure was nearly all *cow dung.* The man of grain had vastly more straw than he could get his stock to trample underfoot and get in any condition to ferment properly, so as to reduce its bulk. Finally he worked out of this smoke, and came to understand each other, at least partially.

My case is that of the grain raiser. Usually we have a large surplus of straw, after we have used all our stock during the winter to trample it underfoot as an absorbent. Our sheep sheds will have from two to three feet of what we call manure, in depth, which we must take out and mix with the manure of the yards, and pile it up so as to have it receive and retain the greatest possible amount of rains that fall on it. These piles *have never fire-fanged* with us; but sometimes the manure begins to fire-fang a little before we can find time to get it out of the sheds.

But why not draw the manure directly to the field and put it at work in enriching the soil? This question is constantly asked, and should be answered. The first reason is: the straw has not yet absorbed all it will and should, from the excrementitious matter mixed with it, and if it is drawn out and spread it will never absorb it.

The next reason that I present is: the whole mass is too bulky to be advantageously applied. either on the surface or to be plowed in. In fact it cannot be plowed under, (without some extra hand being required to bury it in the furrows,) by any process known to us. The third reason is: two or three loads of this bulky manure will shrink into one, by the time we are ready to apply it to grass or wheat in the fall, and thus it is far less work to pile in the spring and draw and spread in the fall, than it is to take the whole crude mass out in that season of the year when the ground is full of water, and so soft that the wagon wheels cut and puddle roadways, to the great damage of the field. I must here say that this plan of working our manure on our grain farms, is not at all peculiar to us, but is universally adopted by all our neighbors and men everywhere, so far as I know who are like situated.

With the grazier things are all different, and they are sagacious enough to do about the thing best for them. And, Mr. Editor, allow me to say further that so far as my travels have extended, I have found that farmers generally know about what is best for them to do in view of the kind of farming they are engaged in, and in view of their proximity or remoteness from mar[illegible]. And it is very dangerous to advise any very wide departure from the practices of the progressive farmers of any locality.

As to the point now under discussion in the Agricultural papers, relating to surface manuring, or manure deeply buried, I wish to say that on our lands I have no doubt that manure should be put on or near the surface. Ground intended for wheat, after the last plowing, when the furrows are as rough as the plow has left them, is just in the condition to receive the manure that has been reduced in bulk and mixed by the processes practiced here. The harrow will mingle it with the soil, and perhaps slightly cover most of it, if it is drawn across the furrows. Then roll the land and drill in the wheat, and leave the surface untouched behind the drill. If anything will insure a crop of wheat here, this is the way to do it.

I have many times drawn unfermented manure from the yards in the spring, and put it on sod-land intended for corn, and plowed it under deep and well at great cost, but with very little

benefit to the crop. The next time the land was plowed, I have seen this strawy manure, covered with white mold, in the bottom of the furrow. We do not follow this practice now. If we were to attempt to raise extra large corn, we should begin farther back, and manure the land when we put it into wheat; again while we were pasturing it; and save some well-rotted manure over a year, and top-dress the soil after we had plowed it; then harrow well, and plant with "great expectations."—*Cor. Country Gentleman.*

Benefits of Autumn Plowing.

The tillage and drainage of the soil are very closely related to each other. So indeed are the tillage and manuring the soil. And these, not merely as cause and effect are related—although drainage does enable tillage, and tillage does alter composition—but as being operations of the same class and kind. And thus Mr. Bailey Denton, though engaged in a lecture upon land drainage, could not help referring to the steam plow, as the great tillage implement of the future. And we had from him, too, the striking fact bearing on the composition of a fertile soil, that in a state of perfect tilth, one-quarter of its bulk is air.

Mr. Smith, of Lois-Weedon, says that in all clay soils containing the mineral elements of grain, perfect tilth dispenses with the need of manure; and there cannot be a doubt that a deep and thorough tillage enables soil to draw immensely on the stores of valuable food contained in air and rain. Messrs. Hardy again says that perfect tilth dispenses with the need of drainage; and there can be but little doubt that deep and thorough tillage facilitates the operation of whatever drainage may exist, whether it is natural or artificial.

In both these cases, the useful lesson is well taught, that it is true economy rather to put the cheap and copious storehouse of Nature's agencies to its fullest use, than by laborious and costly artificial means to imitate expensively their operation.

Such a lesson applies, beyond the advantages of tillage, to the methods by which tillage is obtained. Among the earliest suggestions of cultivation by steam power, was that of reducing by its means the soil to tilth at once. The land was to be torn down, as the deal is torn down at the saw-mill; though before the machine it may have been as and fi a wood, behind the tool, as it advanced at work it was to lie as light and fine as sawdust. But it has at length been found that it is better because it is cheaper, and more perfect, too, to leave this last refinement of the tillage process to the weather, which does it without cost. The land is now torn—smashed up—or moved and thrown about by plow or grubber, in great clods and lumps. This is best done in dry autumn weather, and thus it lies till spring. Certainly no climate is better adapted for cheap tillage than the English—the rains and frosts of winter, following a dry September and October, must penetrate and thrust asunder the clung and hardened masses of the soil. No two particles shall remain adhering to each other, if you only give room and opportunity to the cheapest and most perfect natural disintegrator in the world. No rasp, or saw, or mill will reduce the indurated land to soft and wholesome tilth so perfectly as a winter's frost. And all that you need to attain its perfect operation is, first to provide an outlet for the water when it comes—by an efficient drainage of the subsoil—and then to move the land while dry, and break it up into clods and fragments, no matter how large they be, and leave them for alternate rain, and drouth, and frost, and thaw, to do their utmost. —*London Agricultural Gazette.*

Top-Dressing Mowing Lands.

You quote the results of top-dressing mowing lands by manure in autumn and spring, with the result, that the autumn dressing gave a much larger crop of hay the succeeding season than that of the spring dressing. And the article "hopes for further experiments," to ascertain, as we suppose, why such should be the facts. We take it that the solution of the matter in either case is exceedingly simple, thus: In the fall dressing—and if before the ground were frozen all the better—the manure was washed by the fall and winter rains into the turf, which warmed and strengthened the roots, and gave the grass a vigorous and early start in the spring. The succeeding crop was therefore half made before that part of the field which waited for the spring dressing had waked up. The latter, having to wait until the ground had become settled and dry enough to bear the cart or wagon which brought the manure to it, had no chance to receive its rich deposits, which must have time to wash in and decompose, before they could be of any benefit, and must be postponed

until another year. And even then half the value of the manure, so thinly spread over the surface, would evaporate in the summer sun and be lost altogether. We would prefer half the quantity of top-dressing applied to grass grounds in the month of September, or October, or November even, to the full quantity in April or May.

Indeed, the tramping of the teams, and cutting by the wheels of the vehicle by going on to the soft turf in spring-time, is nearly as pernicious to the coming crop as not to dress it at all. Were the case our own, we would much prefer to heap the manure in the barn-yard, with the loss of its natural evaporation, and apply it any time after haying, than to top-dress in the spring. Our own notion is, in top-dressing grass land, to get the manure into the land as soon as it is out of the animal that makes it, at any time before the frost leaves the ground in the spring. Failing in that, we would wait till "after haying." In using fresh manure, the grass seeds in it help to keep the turf lively, and are a decided benefit.—*Lewis F. Allen, in N. Y. Observer.*

Chemistry of Manures.

In the farmer of the 16th, under the head of "Muck Treatment," is a good article from the Working Farmer: but then there is as much difference in the manurial value of muck, as in stable manures. Its value depends on the materials it is made of. The muck of a hemlock swamp is very poor in the necessary ingredients of manure, in default of that leaf mold so rich in nitrogen, which deciduous trees alone can supply. But the next article from the same paper, "Ammonia as Manure," appeared to me in my simplicity, to be a part of special pleading in favor of mineral or inorganic manures, at the expense of the nitrogenous compounds. The article contends that the doctrine of the English chemists, "that the value of manure depends on the amount of nitrogen it contains," "is entirely illusory." No wonder that the editor of the Working Farmer, who is a vender of superphosphate of lime should thus attempt to demolish the English chemists, for they have done for the English farmers what the editor of the Working Farmer, Professor Mapes, is probably afraid chemical analysis will do for the farmers on this side the ocean, save them from being victimized by the venders of deceptive manures. Professors Johnson and Pugh, have both analysed Mapes' superphosphate, and pronounced it no better than it should be. It is true that an application of ammonia salts will not keep up the fertility of a soil exhaused of its potash and phosphoric acid; but carefully repeated experiments have shown that the addition of two hundred pounds of the sulphate of ammonia to an acre of wheat has produced twice the cereal yield that potash, phosphate of lime etc., did without the aid of ammonia.

I would ask the Working Farmer, why it is that Peruvian guano containing 14 per cent. of nitrogen, is twice the price in England of the phosphatic guanos so poor in nitrogen? It is not only the English chemist, but practical farming experiments, that have proved that the value of manures depends in their richness in nitrogen. Every farmer knows that fire-fanged stable manure with its nitrogen thus exhausted, has not half the value of slowly decomposed manure, although it still contains its mineral (inorganic) elements intact. It is true that in England, superphosphate of lime is the specific manure for turnips, and that mineral manures generally have the best effect on clover and the leguminosæ; but without the liberal application of nitrogenous manures to the soil, no maximum crop of the cereal grasses can be grown.

The Ohio Farmer needs no professor of chemistry to tell him that the manure of the stable from cattle well fed on grain as well as hay, is the true type of manure containing all the elements of plant food, both organic and mineral; when peas, beans, or linseed meal is added, the value of the manure is increased only because its nitrogen is increased; and every observant farmer knows that the compounds of this simple substance are not only plant food in themselves but quickeners and preparers of other matters in the soil into soluble plant food also.—S. W. Waterloo, N. Y., Aug. 1862.

To Preserve Cider.—When the cider in the barrel is in a lively fermentation, add as much white sugar as will be equal to a quarter, or three-quarters of a pound to each gallon of cider, (according as the apples are sweet or sour;) let the fermentation proceed until the liquid has the taste to suit; then add quarter of an ounce of sulphite (not sulphate) of lime to each gallon of cider; shake well; let it stand three days, and bottle for use. The sulphite should first be dissolved in a quart or so of the cider before introducing it into the barrel of cider.

Drought and Culture.

Nearly every season our crops suffer more or less from drought, and it is no strange thing for the yield of oats, hay, etc., to be lessened one-half from this cause, while in some cases almost an entire failure is reported. The importance of water in farming and gardening will be realized when we consider that plants obtain their food from the soil in a liquid or at least in a humid condition. The best and richest manures may be applied to the soil, and yet if the ground is so dry that the particles are not dissolved, it affords plants but little nourishment, and they may starve in close contact with that which under more favorable circumstances prove their best food.

We cannot, of course, cause the rain to fall to suit our convenience, and it is well for us that such things are placed beyond our control as we have far more now to attend to than we do well or wisely. What then, it may be asked, can we do to prevent the ill effects of drought; and if the absence of the necessary amount of water from the soil is so great an evil, why do we endeavor to get it away from the soil by underdrains?

A large quantity of water is not required in the soil, and indeed, is positively injurious to all our commonly cultivated plants; humidity is all that is needed. By carrying off excess of water at certain seasons this condition is obtained with more uniformity. The soil that is soaked with water for a long period, or where water stands, becomes heavy and compact, unable to absorb, like a porous soil, the water that falls in showers during our warm weather, a great portion of which runs off without penetrating to the roots of the plants. This is one reason why a drained soil is more uniform in its moisture than one undrained, and why crops in land thoroughly drained seldom if ever suffer from drought. Again, the atmosphere contains moisture, as is seen from the dew, which is the water condensed from the atmosphere by the cold surface of the plants.

Another common illustration of the same principle is seen in the moisture collected on the outside of a pitcher filled with cold water.—the air in summer is warmer than the soil, and therefore when it has a good opportunity to penetrate, leaves its moisture, to the great benefit of the soil in dry weather. The more porous and friable the soil is kept, and to the greater depth, the greater the amount of moisture absorbed. This is the reason why sandy loams suffer usually less from drought than a stiff clay, although the clay is colder, and would therefore absorb more moisture, and is also more retentive, and under like circumstances would suffer less. But our clay soils in a dry time are found generally baked hard, with the surface cracked, and almost impervious to both air and water. A year or two since, very late in the season, we observed a farmer passing through his corn with a cultivator, and as it was late in the season for this work, and no weeds visible to make the necessity of the operation apparent we inquired the reason, when he informed us the crop was beginning to suffer from drought and he always found that going through with the cultivator was as good as a shower.

Near the surface, the soil is dryer than further down, the moisture being evaporated by the heat of the sun; and for this reason plants with roots near the surface, suffer more than those with roots extending down into the soil a considerable distance. While our small crops are drying up, the fruit and fruit trees do not suffer for water. If the soil is kept friable, water will constantly arise to the surface, just as it will arise and moisten a whole sponge when the lower part only is placed in water. If the soil is hard this operation will be very much retarded. Every one will observe the difference between holding a sponge and a piece of wood in water. In both cases the water will arise some distance, but in the latter case much more slowly.

From the above hints, which we designed as merely suggestive, and to induce observation and reflection on the points in question, it will be observed that, although we cannot control the clouds and rains we can do very much to prevent the disastrous effects which so often result from drought.—*Rural New Yorker.*

Sale of Blood Horses.—McDonald, of Baltimore, the owner of Flora Temple, sold off all his stud of blood horses, bringing him over $6,000. The prices were fair. Renwick, the furniture man, who was an inmate of Fort Warren for some time, was a heavy purchaser. Two Cubans bought largely. The horse sporting world were greatly "stirred up" by this sale, every body wondering why McDonald, with his $60,000 a year income, should abandon the turf so summarily. He has probably undergone a "change of heart," the fashionable mode of expressing a thing that does not pay any longer.

Fattening Pigs and Making Manure.

It is entirely too common among farmers to allow pigs to lead the life of retired gentlemen, or in other works, to live without work. This is a great mistake; for of all the animals kept on the farm, the pig is best fitted for the manufacture of manure; and other things being equal, will manufacture more manure within a given time than any other animal.

I usually keep four pigs, and am disappointed if they do not furnish me with twenty-five loads of manure every year. There are many things allowed to go to waste on the farm, which if placed in the pig-pen, would make the best of manure.

My plan is nearly as follows: as soon as the yard is emptied in the fall, I haul ten or twelve loads of road scrapings or washings into the pen; this I cover with a good layer of wheat straw, or what is better, if you have it, a layer of timothy straw, from which the seed has been thrashed. During the winter the pigs are furnished with as much wheat straw as they can work in. I prefer wheat straw because it has a tendency to keep the pigs clean, while I am convinced that oat straw has the opposite effect, and beside this the latter is more valuable as food during the winter or wet days of early spring.

During the winter and spring, when the snow is off the ground, I haul in leaves from the fence corners near the woods, hassocks from the meadows, and any other absorbents which may be within my reach. During the spring and summer, I haul in road sand, wood, earth, sods weeds from the fence corners, long, coarse grass from wet places in meadows, and even common soil from the road side. Care should be taken to keep the pen well littered all the time with straw, if you have it; if not, sods from the road side, or some of the articles in the list above.

Grass is an excellent thing as food for hogs, but I cannot spare mine from the manure heap to collect grass for themselves; but instead of this I always retain a portion of one of the two fields in close promixity to the pen, and cut a portion every morning for them and place it in a strong upright-rack, where they have free access to it all times of the day and night. In this matter I can, with the addition of what slop is made about the house, keep four pigs in good order from the middle of May to the middle of September. One pig which I fed in this way last summer, gained eighty-six pounds during the above time. I consider that the additon to the amount of the manure will amply compensate me for the additional time, (about one-fourth of an hour before breakfast every day,) which is required by this plan of feeding.

I consider apples at fifty or sixty cents per bushel as worth more than corn for fattening pigs, and think the pork so made of a better quality.

If I have not apples, I prefer corn and oats ground in equal proportions, as far superior, bushel for bushel, than corn alone. For young and growing pigs, it forms the best food with which I am acquainted, especially if mixed with milk.

The above mentioned articles for manure should be spread evenly over the pen, and the pigs in their search for roots will mix them together in a very thorough manner. Care should be taken to have a good, compact layer of straw on top of the shovelings or road sand, that the materials and long manure made during the summer may not get mixed with it.—*Cor. Germantown Telegraph.*

Some Oats.—Mr. C. F. Espich, of this place, raised, the present season, one hundred and fifteen bushels of heavy oats on a lot containing one acre and a half of ground. This a heavy yield, who can beat it?—*Tuscarawas Advocate.*

Air-tight Bins for Grain.—A recent issue of the La Genie Industrial, contains a notice of a report lately made to the Society of Civil Engineers in Paris, by M. Doyere, in which that gentleman gives an account of a long series of investigations and experiments made by him in relation to the preservation of grain. M. Doyere comes to the conclusion that the very best mode of preserving wheat and other grains is by enclosing them in air-tight boxes, which are buried in the earth or deposited in cellers beneath the surface. He says that the best material for the boxes or bins, is sheet iron in very thin plates, galvanized, or covered with zinc and painted on the outside with bitumen. The principle purpose of M. Doyere's report is to give an account of five experiments on a grand scale which have been made at Paris, Alger, Cherbourg, Brest, and Toulon, from 1854 to 1861 to test this plan. The conclusion formulated in the documents is, that the wheat, in all cases, came from the bins the same as it went in, weight for weight, quality for quality. It was preserv-

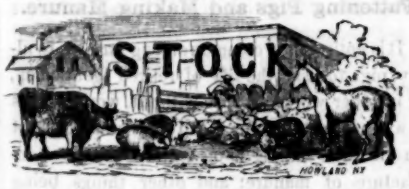
ed without deterioration, without detriment, and without expense. In addition to this it is stated that the iron bins cost from one-half to three-fifths as much as ordinary granaries.

STEAM PLOW.—M. L. Dunlap, of Champaign, Ill., writes to the Ill. Farmer about the great steam plow:

Fawkes, the inventor of the steam plow, has made us a visit, and removed his plow "Lancaster," which has stood on our farm since November, 1860, to Decater, there to be used in a machine shop to drive machinery. He has given up all hopes of the traction principle for plowing, and says it can only be done by a windlass. He is now busy inventing a ditcher for open ditch, to be attached to his old machine, which he has repaired and has in working order at Decater. We hear little or nothing about steam-plowing at present, and probably all other inventors have come to Fawkes' conclusion that it can't be did by traction engines.

FARMING ON SHARES.—Connecticut boasts of some great farmers. They have a curious way of doing things *on shares*, and the results of these operations sometimes offer a fine field for the display of logic. One of their farmers leased to his son-in-law three acres of land, to be planted with corn and cultivated by him at "the halves." In the fall the lessee said that was the poorest land he ever worked on; "For," said he, "I worked hard all summer, and at harvest time, when we came to divide the crop, I not only had no corn left for myself, but I had to go and buy five bushels of shelled corn to make out my father-in-law's half." Here is another case illustrating the working of this "peculiar institution" of doing things on shares: Farmer A. happened to have more pigs than he could keep, while his neighbor, B., had more milk than he could dispose of. One day A. brought two pigs over and deposited them in B.'s pen, saying that he wished B, to keep them on shares, and that he might keep them two months and have *one* of them as his share. B. replied, that as he had plenty of feed, he would keep them four months, and have them both, as, of course, that would amount to the same thing! A. left, saying that he supposed it was all right; but he guessed he wouldn't bring any more.

"Sir, this horse you sold to me can't be made to budge the first step."—"Well, didn't I guarantee him as never *starting*.



Steaming Feed for Working Stock.

Perhaps your readers who are practical stock feeders, may feel interested to know the manner of feeding and the results, as the experiments may prove of service to some who may desire to follow a similar plan of feeding. About thirty animals, young and old, were fed six months or more with cut hay, steamed and mixed with ground oats and shorts. The hay was cut short and placed in a tight box and boiling water poured over it, the cover of the box being closed for twenty minutes, allowing the hay to soften by the steam; then the oat meal and shorts, and a slight dash of salt was added, and fed warm in quantities suited to the age and condition of the animal to be fed. Good hay was mostly used, but straw, refuse hay and chaff treated in this way were eaten with avidity.—Here was the trouble as I believe; the stock were more eager for the warm food, and many of them bolted their allowance in a few moments. The result was that such ones in a few months plainly showed the effects of such hasty feeding. Loss of appetite and spirits plainly indicated dyspepsia. The coat of these animals looked unusually sleeked and fine all the time; but their power to endure a day's drive, or courage to perform ordinary exertion was much impaired. Quite a number of horses treated in this manner show no material alteration, yet I feel fully convinced that continued feeding with warm shortened feed would reduce their digestive organs to a like weak state.

Having shifted my method of feeding to long hay and dry unground oats, fed in such a manner as to insure deliberate mastication as such as may be, I think I may safely say that the result was satisfactory—restoring the wonted vigor and endurance for hard and continued efforts. If I had coarse fodder which it was desirable to consume, I should prefer to keep the stock colder—more exposed in cold weather, creating an appetite for such food rather than to make it tempting by cutting or mixing with meal at the expense of their health. Health is all-important in an animal of which so much power-

ful exertion is expected. Any one never so lightly acquainted with the practice of feeding, in training for the tremendous exertion of trotting and running, knows that long hay and dry unground oats and cracked corn are mostly used; and many careful feeders strip the hay of all seed, and feed oats a few handfuls at a time, distributed over the bottom of the manger, that time may be afforded to thoroughly reduce the food before swallowing. This most certainly induces a healthy state of the digestive organs, and prepares the animal for violent labor.—*Cor. Boston Cultivator.*

Sheep Raising in Central Ohio.

[Jacob Stoolfire is a successful wool-grower at Hebron, near Columbus. From a letter written by him, to the Rural New Yorker, we copy what follows.]

I have noticed several inquiries relative to sheep raising: also, asking which pays best—sheep or cattle. I have been dealing in both for the last twenty years; and my experience qualifies me to say that sheep pay better than cattle, and will, with a less amount of capital, bring a greater income. I have not raised cattle, but have bought and pastured a hundred almost every year for the past ten or fifteen, until the last three or four. I have, at the same time, been raising a flock of sheep, trying to bring them to the highest standard both of weight and profit. These circumstances enable me, I think, to give advice to any that may desire it.

I have always cherished the idea that a large flock of fine sheep could be bred so that they would shear four pounds of washed wool. I have now passed what I once considered the maximum weight of a fleece, and have about nine hundred sheep that will average four and three-quarters pounds; and hope, in two more shearings, to bring it as high as five pounds, if not more. In this large flock of sheep, I have not one poor animal, and none but will produce a good article both in crimp and quality.

Some persons have thought that I possessed a secret by which I keep so many, and lose so few during the winter—my loss never being more than one out of a hundred, and sometimes not that; but the only secret is punctuality in feeding, and giving just enough of the right kind of food. To sheep over one year old, I feed shock corn, well scattered on the field, so that they will not trample and soil it. The sheep should be kept away while scattering, so that all may have an equal chance. Commence with a very little before the pasturage is done, increasing as the winter sets in, until you have reached a full feed of about one and a half bushels per hundred once a day, and no other grain, varying to suit circumstances in general. To sheep unused to eat corn in this way, the ears should be mashed for them once or twice. As the weather grows warmer, and pasture increases, decrease the feed until the pasture is sufficient to keep them; then turn them into the field where you intend they shall remain, and in no case change them so long as they do well Always keep salt lying by them.

My lambs I feed either shelled corn or oats, together with hay, feeding twice a day—the grain first; then putting them in a small pen with the hay, keeping them half the day, then turning out. After feeding at night, pen again as usual. In this way they will eat all their hay. Always have salt in the pen with the hay, so that they can get it whenever they desire. Hay that is fed to sheep should be of the best quality, and just enough given to eat—none to waste. The corn also should be good. May we consider the best lambing season. I have no sheds, because I think sheep will be healthier without, and do most positively condemn close ones.

Any one having sheep, and who will take care of them, will get rich, as will his farm also. No stock pays as well. My sheep bring me three dollars per head, clear of expense. A new beginner in the business should buy cheap-priced sheep, paying from one dollar and a half to three dollars, getting the best he can for the money, and just as many as he can care for properly—no more. The best grade is half-blooded Merinos. These will pay him about twenty per cent. Then select good bucks, never selling the best, but always the worst. Never buy of a peddler, for they will cheat you, no difference what provisions are made. The common error of wool-growers is that of making their flocks too coarse. My sheep are the old-fashioned, black-top Merinos, of the Wells and Dickinson order, as near as I am able to judge.

Charcoal as a Disinfectant.—Charcoal dust proves to be even a greater disinfectant and preservative, than had been supposed. Rev. Dr. Osgood has exhibited to the editors of the Springfield (Mass.) Republican a cutlet taken from a ham which had been kept eight years

completely imbedded in that preparation, and which seemed as sweet as if it had been cured only a single season.

The Coming State Fair.

The war has engrossed all attention for awhile back, but even above the din of mustering armies, we receive assurances from the country, that the coming State Fair will not be overlooked. At the grounds everything is progressing in good order, under the energetic management of Mr. DeWitt, the resident member of the State Board. When the time for holding the Fair comes about, the people will be glad to take a little breathing spell and visit this beautiful city, and meet the thousands who will come on a like errand to spend a few days in the interchange of kind feelings, to look at the excellencies of the farm, the field, the shop, the mill, the household, and remember that the old arts of peace still underlie all our stability and power as a nation; and come what will of war and civil commotion, we must still fall back upon these for our personal and social existence. Let us think seriously of these facts, even now, and prepare for the great annual festival of labor and production, as a christian people.

A New Churn.

While stopping at the beautiful town of Bloomfield, in Trumbull Co., Dr. Howe, of that place, showed us a new churn, invented by a studious clergyman of that region, which bids fair to supercede the whole family of patented machines for butter making. The form of this churn is much like that of the ordinary thermometer churn, and the peculiarity consists in the paddles being composed of cards of wire, set in a frame like a gridiron; these making the four paddles set in the arms, and being turned by a crark in the ordinary way, break the globules of cream, and fetch the butter in much less time, and with more certainty, than any other way yet discovered. The inventor was led to the discovery, by accidentally using a wire egg-whipper upon a batch of refractory cream, which had become "bewitched" in the ordinary process of churning. The cost of this churn will be but a trifle above that of the old thermometer pattern, while the saving to dairymen or families will be immense, if it fulfils the present promise.

Wool.

We have all along predicted that Wool would be active and see higher prices, and this week our anticipations have been more than realized. Domestic Wools have advanced 3 to 4 cents per lb., and Foreign about 5 to 7 cents per lb., with a tendency still higher. The active demand for Kerseys, Blankets, and Flannels this week, has caused quite a stir in the Wool trade and the business has been larger than at any time before this year. Holders are now very firm, and are demanding an advance on the present advanced prices, and we have no doubt that Fleeces will bring 70 cents within a fortnight. At to-day's market, 62½ cents was the current price for Fleece, and 50 cents for some kinds of Foreign. Coarse and medium descriptions are most wanted, and the supplies are much reduced. The Government is advertising for Wollen goods, and we look forward for brisk times in the Wool trade, and very high prices. The present advance in Wools is more than 50 per cent. over prices current eighteen months ago.

The Union Ag. Society, holding its fair at Wellington, Lorain Co., has decided to hold no exhibition this year.

The Cuyhoga Falls Fair, which was set for the first week in Sept., has been postponed for this year, by a recent decision of the Directors.

The Cuyahoga Co. Fair, has been postponed for this season, by the Board of Managers. This is a judicious conclusion, and leaves the whole ground clear for the State Fair.

Russell's Prolific Strawberry.—We learn that Mr. Geo. Clapp, of Auburn, N. Y., the proprietor of Russell's Strawberry, has received sufficient orders to induce him to commence the sale of plants this fall, instead of waiting till next spring as he had intended.

Variegated Leaved Flowering Quince.—Mr. A. McIntosh brought us, this morning, a branch of a seedling flowering quince, that has its mature leaves a bright, clear, pale yellow with a beautiful vermillion edge; while the immature and young leaves are rich carmine red

on the upper side, and pale reddish pink underneath. Mr. McIntosh says the plant is now several years old, and has always exhibited this same character. Such being the case, it will be one of the most ornamental plants for the shrubbery that can be had.

GRAPES.—A recent visit to the plantation of Geo. W. Campbell of Delaware, revealed the industry and untiring energy of that gentleman in the improvement of grape culture and propagation. Mr. Campbell has a wonderful knack of hybridising, which is one of the most delicate and curious operations in nature. We shall expect his tables at the State Fair to be a point of unusual attractions to visitors.

The New York Horse Market.

The Horse market is enjoying a summer season of rest. In truth it has not been in an active condition at any time. It is rather more quiet than usual about these dog days. Yet a stranger would say, if he looked into the principal stables in Twenty-fourth street, the trade must be flush, because he would see the stalls nearly all full. Look closely and you will see U. S. branded upon most of the lot; and some of them since it was put on have stood eating costly hay and grain sufficient to add $20 or $30 to the original cost. This is not strategy, it is management. We should have said, if the horses are not wanted don't buy them; and if they were bought and not required for six or eight weeks, turn them out to grass. It would not be quite as expensive as city stabling.

"Horses for the army," at $100 each, has formed the bulk of trade in the horse market this year. The city railroads and stages have bought less than usual, and for city work, the trade has been extremely light. As to gentlemen's horses for carriages, road wagons, or the saddle, it is rare to meet an enquirer. The bulk of the horses sold, besides to the army, have been to farmers, and generally of a pretty good class, such as make good workers, and a genteel go-to-meeting team, and worth about $200 or $250 each, for the best of that class, and so down to $150 to $125.

The selling price of good horses is rather higher than it was a year ago, and work horses lower. This is owing to a smaller demand for work horses, and that the price of any horses has been fixed low. As the consumption and waste of war has drawn largely upon the stock of this class, the farmers have retained a better class for their own use, so that the number of good horses in market has been comparatively small, and the price advanced so that the few sold have been at very fair rates, and has tended to keep up the price in the country so high that dealers are unwilling to purchase. The risk of not meeting ready sales is too great. We know some real good horses held at $250, and not high at that, which have stood two months or more awaiting purchasers. In such cases loss is inevitable. It is only quick sales that make money.

We have taken pains to learn why the city railroads buy fewer horses than formerly. We find that it is all owing to care and keeping.—We are most familiar on the Third-avenue road and know that the horses work hard; yet out of a thousand, only three died in July, and a very few went into the hospital, and generally speaking the stock is in admirable working order. Look into the stable which is large enough to have a thousand horses all in one view, and learn how they are treated, and you will see the cause of their healthfulness. The manager of that road is one of the best in the world, and he has organized a stable that every farmer might visit with advantage. It will soon pay its cost in the saving upon horses. Government agents might take lessons from this stable. If the Government should employ Wm. A. Darling, at $100,000 a year, he would save twice that in horses and other Government property.

As to the prospect of the horse market in Autumn, we cannot say that there is anything to encourage a hope of any great demand beside army horses. At any rate, the trade is very inactive at the present time.—*Tribune, Aug.* 23.

The New Postage Stamp Bills.

The new "legal tender," or postage stamp bills will soon be in circulation. They form a very handsome little bill, one-fourth or perhaps one-third, as large as a Treasury note, and so carefully engraved as to render counterfeiting as difficult as are the Treasury notes themselves. The body of each note is made up of an engraving representing stamps of the different denominations to make the sum—five cents, ten, twenty-five and fifty—that the bill calls for, the edges of the several stamps apparently overlapping each other, and the whole surrounded with scroll work, and with the explanation of the way these can be exchanged for postage stamps or Treasury notes. On the back are the figures

for the denominatton—5, 10, 25 or 50—elaborately engraved with medallion work, thus preventing the possibility of counterfeiting by the photographic process.

It is a curious fact that the designs from these bills came from an old lottery dealer, a Mr. Gregory, of New York. When the difficulties attending a general circulation of common postage-stamps in place of small change began to be talked about in the newspapers, Mr. Gregory, who had had no little experience in contending with similar difficulties in his lottery-ticket business, addressed a letter to the Postmaster-General offering such suggestions as would obviate them. The letter struck Mr. Blair as embodying so much sound common-sense and practical knowledge of the subject, that he at once telegraphed to Gregory to meet an agent of the Department in New York, at a certain time, and lay his plans more fully before him. The result of the interview was that Gregory's suggestions were adopted throughout, and the new bills are thus almost entirely his work.

Veterinary.

The Action of Chloroform on Horses.

Under the action of chloroform, the nerve centres lose their powers in regular successsion.

1st. Cerebral lobes of the brain, then consciousness, with their intellectual powers is arrested.

2d. The cerrebellum loses its power of regulating motion.

3d. The spinal cord becomes incapable of sensation and of originating motion.

But the meddulla oblongata, the nervous systems of *the senses*, which presides over respiration, still retains its function. When the meddulla oblongata is affected, then breathing ceases, and death is near. But the sympathetic system from its universal influence retains its functions, the heart still beats and intestines contract.

To produce insensibility in the horse, it is only nesessary to cause a piece of sponge held in the hand in a piece of bladder, to imbibe from it two or three ounces of chloroform and bring it near one nostril during inspiration, while the other is closed; this being continued for a short time, temporary insensibility takes place; the chloroform having entered, causes the blood a depressing influence on the nervous system by temporary paralyzing the brain and spinal cord.

The action of this agent can be appreciated by the veterinary surgeon in the performance of surgical operations. I have performed the operation of removing tumors, depressing cataracts, reducing hernia, and trephining for Epiphysis, (big head,) the animal all the time in a of state unconsciousness from the effects of chloroform, without the aid of which, the power of twenty men could not have controlled the muscular action.

In administering chloroform, care must be taken that too great a quantity is not inhaled; the pulse is an index; should it intermit, the sponge must be immediately removed, and oxygen inspired, or death will soon be the result.

Chloroform is an invaluable agent in severe spasmodic colic, either by the stomach or injections; dose 1 oz., given in mucilage, which renders it more persistent in its action, is sudorific, (a medicine which provokes sweating,) anti-spasmodic, and the effects salutary. I have frequently seen hopeless cases of spasm immediately yield to its influence.—T. Webb, V. S., Zanesville, O., August, 1862.

Action of Medicine on Horses.

Copper has, from the earliest time down to the present, been employed in medicine; and there is scarcely a book on farriery, however old its date, in which we do not find some mention made of it as a therapeutic agent, for the disease of horses. Blue vitriol, Roman vitriol, and Blue Stone, are the appellations the sulphate copper formerly went by, this being the preparation whose use has been so ancient as well as extensive in veterinary medicine.

Sulphate of copper, commonly known as blue vitriol or blue stone, has become, as a remedial agent, so great a favorite with the veterinarians, that for general purposes, outward as well as inward, no medicine in his pharmacy is oftener resorted to by him. Internally, blue vitriol has for years been exhibited as a remedy for farcy and glanders, and has been supposed to have a tonic or strengthening effect as well. In large doses, its action becomes poisonous. A few cases will tend to show the effect it takes on horses:

A bay gelding, 4 years old, had incipient glanders, but in other respects manifested good health; I commenced by giving two dram doses of the sulphate of copper daily; on the 6th day the horse expressed nausea and occasional griping pains; discontinnued the medicine three

days, again commenced on dram doses, and in the end the horse got well.

Case 2nd. A coarse black cast mare, had been discharging purulent matter from the off nostril, and the case presented a suspicious appearance. Commenced on half dram doses for ten days, after increased the dose to one dram twice a day; a perfect cure was the result.

Case 3d. Grey horse, 6 years old, with nasal gleet; after trephining the frontal sinus, I administered my favorite glander and farcy ball, composed of sulphate of copper, zij, antimony potassio tartrate, ziij, venice turpentine sufficient to form a ball; the result was a perfect cure.

I scruple not to admit that of many cures of farcy and glanders, the operation of copper judiciously administered, will assist in a cure.

As a tonic, copper would give tone and vigor to the constitution, and might where there was a natural tendency to counteract or throw off any morbific poison, aid the constitutional powers in their salutiferious operations. As an astringent, it would check or repress the secretions of mucous and ulcerous surfaces; the turpentine combined with it, would add to its astringent effect upon the discharges, and produce a diuretic effect as well, and thereby further co-operate in the health restoring process. In this way we account for sulphate of copper curing some cases of farcy and glanders. Some are in favor of prescribing copper in a liquid form; it stands to reason, that in a state of weak solution, the mucous surfaces of the bowels must be subjected to less irritation or annoyance from it, than when administered in substance.

Against this, however, we have to set the objections existing, and not without reason, to drenching. My practice is never to prescribe a draught, where a ball can be made to answer the same purpose. In such cases, however, as the present, where the medicine is of a caustic or eschautic nature, and where repetition and long persistence in the use of it becomes absolutely necessary, the liquid form may be chosen, great care being exercised in the administration of the drenches.

As a topical remedy, the sulphate of copper is so generally and extensively employed, that without their blue wash, veterinarians would hardly make their way in practice.

It would be idle for me to pretend to point out in how many ways it is and may be useful. I shall only, in conclusion, observe, that of the other preparations of copper introduced into veterinary medicines—the sub-acetate and diniodide—the former is found exceedingly useful as a topical agent on thrush, canker, &c., and the latter has been presented to us by Mr. Norton, as the efficacious preparation in which we can employ copper in farcial and glanderous affections.—T. Webb, V. S. Zanesville, O.

Barren Mares.—A French veterinary surgeon contends that sterile mares can be impregnated at the first covering by injecting into the vagina one or two glasses of water at the temperature of the blood. Spallanzani asserts that when the seminal fluid is mixed with warm water the fecundating power is augmented. Barrenness is, however, sometimes dependent on disease of the ovaries; in such case warm water would be of little if any use.

Ulcers on and within the Ears of Dogs.—A few applications of the following will generally effect a cure. Take,

Glycerine,	2 parts.
Fluid extract of Bloodroot,	3 parts.
Pyroligneous Acid,	1 part.

Mix.

Mange in Dogs.—Dog-mange is due to the presence of parasites, known as *sarcoptes canis*. Dog-mange is transmissible to man; the following is the best of all remedies for the treatment of mange, either in the human subject of inferior animals:

Caustic Potass,	1 part.
Liquid Tar,	2 parts.
Water,	12 parts.

Mix, and rub a part on the mangy regions twice daily. After a few applications, the parts should be washed with soft soap and warm water, and then rub dry with a coarse towel, and continue the treatment until the patient is free from the pest.

Sheep and Wool.

Fine Wooled Sheep.

By Hon. H. S. Randall, Cortland Village, N. Y.

Circumstances affecting their success.

The early importations of Merinos into the United States, attracted but little public notice. The woolen cloths then made in the country were mostly spun and woven in families. The fine Merino wool was as little adapted to the instruments employed, as was so valuable a material to the cheap, common fabrics worn by our people. Both Livingston and Humphreys,

however, patriotically set the example of attempting fine-cloth manufactures, with the new wool; and the former, with his usual energy as a public improver, made and published the results of investigations and experiments on the subject, which were soon to prove of the highest value.

When the great warlike struggle then shaking Europe led, in 1807, to maritime regulations —the English Orders in Council and the French Milan decree—which converted American commerce into the mere prey of the belligerants, our Government made an effort to save it by laying an embargo (Dec. 22d) which entirely shut our shipping off from the ocean. This was succeeded by the non-intercouse law, which prevented trade with England and France.—France repealed her obnoxious decrees, and trade was restored with her, but the continued attitude of England rendered commerce with her neighbor precarious. A British outrage on an American vessel (the Chesapeake) early in 1811, forced our country to begin preparations for war. This was declared in 1812, and continued till 1815.

Thus for a period of about eight years, our commerce was virtually suspended with those nations which had previously supplied us with our woolen goods, and was so interrupted and precarious with others, that the establishment of home manufactories and of the means of supplying them with raw material, became an object of prime necessity. Most fortunately, the embargo was raised at just the right moment to allow the sheep, which the situation of Spanish affairs threw in the way of M. Jarvis and others, to be purchased and sent home.

At such a juncture, it would be expected that the arrival of the Merino on our shores would be hailed with enthusiasm—particularly, when it was learned we had obtained the very best sheep of Spain. And, as a matter of course, the spirit of speculation lent energy to the movement. From $1,000 to $1,500 a head were in many instances paid for imported rams, and $1,000 a head for ewes. Flocks of full-blood or grade sheep, were eagerly commenced in all parts of the country. Fine wool commanded such an exorbitant price that it required the utmost bad management, added to the most extravagant original disbursement, to render the venture unprofitable. As early as 1807 wool rose to a dollar a pound. In 1809, Mr. Livingston sold his full blood Merino wool *unwashed*, for two dollars a pound! During the war with England it rose to $2.50.

EFFECT OF PEACE OF 1815 ON PRODUCT AND MANUFACTURE OF WOOL.

The Peace of Ghent, and the liberation of commerce which followed, exposed our infant manufactures, and our wool-growing, to the competition of the world. The exhaustion and derangement of our finances assisted in their overthrow. The revulsion from war prices to peace prices, in almost everything, was enormous, and it carried bankruptcy in every department of business, and mourning into every neighborhood of the land. Our manufactories perished. Merinos, which were valued at $1,000 a head in 1809, sold for a dollar a head in 1815. Speculating holders ceased, of course to take any interest in them. Multitudes abandoned wool-growing altogether. Careless owners no longer paid any attention to preserving purity of blood. But the "most unkindest cut of all," that I ever heard of their receiving, was the fear expressed by an agricultural writer of that period residing in one of our north-eastern counties, "that there was danger of the Merinos running out the native sheep."

UNITED STATES TARIFF LAWS.

In 1816 a tariff law was enacted by the Federal Government which imposed a duty of 15 per centum ad valorem on wool, and 25 per centum ad valorem on woolen manufactures. The duty on the latter was to be reduced to 20 per centum after the expiration of three years.

This, as would be expected, produced no effect in favor of the growth of fine wools.—There was little domestic demand for them. The Merinos continued without any considerable marketable value until 1824. They became completely lost to public notice, and there was many a choice flock of sheep of which no trace can now be found.

In 1824 a tariff was enacted which imposed a duty of 15 per cent., ad valorem, on wools costing less than 10 cents per pound at the place of export; 20 per cent. on those costing more, until June 1, 1825; 25 per cent. from that date to June 1, 1829; and 30 per cent. afterwards. On manufactures of wool it imposed a duty of 30 per cent. until June 30, 1825, and 33½ per cent. afterwards.

The decided protection thus afforded to wool and its fabrics, conspired, with other circumstances, again to turn the attention of farmers to the production of that staple. Among these

auxiliary circumstances is to be mentioned the arrival of Saxon sheep in our country. The most extravagant ideas were formed of their value. The country, after so long a rest, was ready for another wool mania, and it set in.

Finding and Hiving Wild Bees.

In answer to certain correspondents who are desirous of learning the *modus operandi* of bee-hunting, I will now proceed to give as well as I may be able, the method practiced by myself, whereby I have no difficulty in obtaining the *exact* locality of the swarm. As something depends upon the *season of the year* in which it is proposed to hunt them, I will give the different methods suitable for each, beginning with early spring. Take the middle of a warm sunny day, the thermometer above 48 deg. in the shade, go the woods near the supposed locality of the wild swarm, and with a lighted match or candle, burn a little dry honey-comb, bees-wax or a piece of wood, on which a few drops of oil of anise has been poured. Keep a gentle "smudge" (to use the bee hunters phrase) going for 15 to 30 minutes, or until the bees come searching along close to the ground, following the line of the smoke. A foot or two from the "smudge," in the direction in which the wind is blowing, elevated a foot or two from the ground, if the surface be smooth, if bushy, higher, so as to have it the highest object near the smoke, place a piece of honey comb, partly filled with sweet freshly diluted honey; or sweetened water will do if the swarm is close by, otherwise they are not so sure to readily accept it. If a drop or two of the oil of anise be added to it, or sprinkled on the comb, the bees will be attracted by its strong scent, and work all the more rapidly. The bees will soon begin to collect upon the comb, and if the weather continues favorable, with but little wind, and the swarm near by, (by, which I mean within, say half a mile,) a steady line of bees will be seen going from the combs laden with the sweets, to their home, wherever that may be.

The first time a bee starts for home, and sometimes for several of the first trips, it will be seen to describe a circle immediately around the comb, the circles gradually becoming larger and larger, till apperently the true bearing is found, when a "bee-line" is struck for home. In order to see them plainly, and watch their course as far as possible, an open space must be chosen or what is better, an open field, even if it be somewhat further off, when we shall be able, by keeping the eye as close to the ground as possible, while the bee flies against the sky, for a back-ground, unobstructed by trees or other objects, to more perfectly line them. Of course, new comers are constantly arriving, and these latter will fill the air with their spiral curvings; but a little practice will enable the hunter's eye to catch those whose flight will now be straight for home, without more than a part of a single circle, while even those striking spirals (if it be not windy) will evidently lean towards home, or circle from the combs in that direction.

Many different swarms are often thus set at work from the same spot at once, sometimes causing much vexation. This will at once be known by constant quarreling. If, now, we desire to divide them, getting rid of all but those which go in a direction indicating that they are wild ones, we have only to place a box supplied with a clean honey-comb, with a little honey in the cells, in the spot from which the bees have been working, removing all other comb, and after the bees have collected therein, close them in with a cover, and carry them in the direction nearly where we suppose the swarm to be, and as nearly to the spot as we can guess. I say nearly, because if we diverge a little out of the line, and yet, when we set them again at work, be considerably nearer the swarm in quest of, while we are further off from the others, we shall pretty effectually divide them. Besides this, if we have chosen the right spot, we shall now probably get a "cross-line," and by following both lines accurately, to the point where the one crosses the other, we shall be in their immediate neighborhood. If left to themselves, one swarm only will be at work after two or three hours, usually, the nearest and hungriest swarm generally driving the others off. Hence it is that not the best, but the poorest and least valuable is often found, if we do not divide them.

When the spot is found nearly where they must be, as indicated by the point where the lines cross each other, we must carefully mark the place, and commence the search of the trees. This is the most tedious of the whole process,

and often requiring the nicest skill in getting into the right position to discover bees at altitudes in which they are often found. When the trees are but short and small, it is not a difficult matter to see them; but when they are up from forty to sixty feet from the ground, it is another thing altogether. In any case, the way to find them is, when you have nothing but the naked eye to aid you, to get in the shadow of the tree and walk slowly backwards and forwards, so as to bring every point of its body and larger branches in range between the eye and the sun, looking at the sides of the tree just below the sun and outwardly, carefully and slowly. They will be seen very easily while in this position, and appear quite large from the reflection of the sun's rays striking upon their wings. A good spy-glass is a great help, however, and by its aid one can readily determine whether bees are at work in and out of a tree or not, even by looking over the top and sides of the branches, or through openings almost anywhere about the tree.

Bees will work honey at any time, even in mid-summer, if it be fresh out of the hive. The way to set them at work at this season, is with a cup or box, with a cover, catching one at a time from the blossoms, setting the cup on the stump of a tree, or other convenient point, till no humming is heard in the cup, when the cover is very carefully removed, and the bee allowed to get its fill of honey undisturbed. It is usual with bee-hunters to make a bee-box for hunting purposes, with a slide two inches from its bottom, so that the comb and honey may be shut out from the bees while catching and carrying them, to prevent their becoming besmeared with honey; for when one bee does so, ever so little, there's no use trying to do anything with that bee, for she knows, as well as you can tell her, that honey is of no consequence so long as she cannot get home with it. A bee-tree should never be cut, except by a person of great experience, before the middle of May, nor after the first of September, since it will be extremely difficult to save them at such times. During these months, no trouble need be had by a person ever so green in the business. Simply remove the honey and comb, after subduing the bees a little with smoke of old rags or tobacco, and with a stick or nail fasten a small piece of the comb, containing eggs and brood only, in a box, for a temporary hive. Now hive them precisely as you would a young swarm in swarming time, removing them at night to your domicil, having previously placed the brood-combs as evenly and carefully in a hive as it is possible for you to do, transferring thither the bees, giving them but little or no honey. If movable frame hives are at hand, this is easily done. Should the queen have been destroyed, they will soon rear another, and collect far more honey, and prove ten thousand times more satisfactory to you, than if you had waited till fall, and then cruelly destroyed them all, as is often done for their stores alone. I have no patience with that class of bee-hunters who practice this latter, and have now only to say to them that their practice may be likened to that of the rude Indians of the forest, who annually slay whole herds of deer for their skins alone; but a more perfect parallel would be found in the farmer, who should make yearly slaughter of his beeves and other stock for their hides and pelts, throwing their carcases to the winds.—M. METCALF, Grand Rapids, Mich.—*Rural New Yorker.*

Fecundity of Hens.

It would seem a providential arrangement in behalf of man, that the domestic hen should be endowed with so great fecundity. The ordinary productiveness of a single hen is astonishing. Instances are recorded of hens laying over two hundred eggs annually, while probably one hundred and twenty would be a fair average. Undoubtedly much depends on circumstances as to the productiveness of hens. Climate has great influence in this subject, and the lodging, food and attention which is bestowed on these animals have more or less effect in promoting their fecundity. It is asserted by Buffon that a hen, well fed and attended, will produce upward of one hundred and fifty eggs in a year, beside two broods of chickens. We find statements recorded in our agricultural journals of several instances of extraordinary products of hens, which will enable us to form some judgment on the subject.

The editor of the Massachusetts Plowman says, from eighty-three hens, seven thousand two hundred eggs were obtained, which would give to each hen eighty-four eggs for the year.

A remarkable instance of fecundity in the hen is related by a correspondent:—Three pullets of the Poland breed, hatched in June, commenced laying in December following, and, from that to the next December, laid five hundred and fifty-four eggs, averaging one hundred and eighty-five to each hen.

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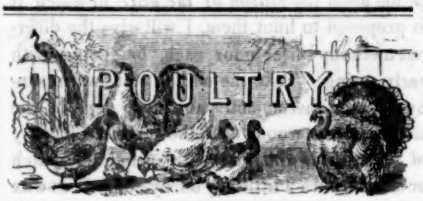
Coming from Rockford to Bloomington—

DISCREPANCY IN PRINT

and often requiring the nicest skill in getting into the right position to discover bees at altitudes in which they are often found. When the trees are but short and small, it is not a difficult matter to see them; but when they are up from forty to sixty feet from the ground, it is another thing altogether. In any case, the way to find them is, when you have nothing but the naked eye to aid you, to get in the shadow of the tree and walk slowly backwards and forwards, so as to bring every point of its body and larger branches in range between the eye and the sun, looking at the sides of the tree just below the sun and outwardly, carefully and slowly. They will be seen very easily while in this position, and appear quite large from the reflection of the sun's rays striking upon their wings. A good spy-glass is a great help, however, and by its aid one can readily determine whether bees are at work in and out of a tree or not, even by looking over the top and sides of the branches, or through openings almost anywhere about the tree.

Bees will work honey at any time, even in mid-summer, if it be fresh out of the hive. The way to set them at work at this season, is with a cup or box, with a cover, catching one at a time from the blossoms, setting the cup on the stump of a tree, or other convenient point, till no humming is heard in the cup, when the cover is very carefully removed, and the bee allowed to get its fill of honey undisturbed. It is usual with bee-hunters to make a bee-box for hunting purposes, with a slide two inches from its bottom, so that the comb and honey may be shut out from the bees while catching and carrying them, to prevent their becoming besmeared with honey; for when one bee does so, ever so little, there's no use trying to do anything with that bee, for she knows, as well as you can tell her, that honey is of no consequence so long as she cannot get home with it. A bee-tree should never be cut, except by a person of great experience, before the middle of May, nor after the first of September, since it will be extremely difficult to save them at such times. During these months, no trouble need be had by a person ever so green in the business. Simply remove the honey and comb, after subduing the bees a little with smoke of old rags or tobacco, and with a stick or nail fasten a small piece of the comb, containing eggs and brood only, in a box, for a temporary hive. Now hive them precisely as you would a young swarm in swarming time, removing them at night to your domicil, having previously placed the brood-combs as evenly and carefully in a hive as it is possible for you to do, transferring thither the bees, giving them but little or no honey. If movable frame hives are at hand, this is easily done. Should the queen have been destroyed, they will soon rear another, and collect far more honey, and prove ten thousand times more satisfactory to you, than if you had waited till fall, and then cruelly destroyed them all, as is often done for their stores alone. I have no patience with that class of bee-hunters who practice this latter, and have now only to say to them that their practice may be likened to that of the rude Indians of the forest, who annually slay whole herds of deer for their skins alone; but a more perfect parallel would be found in the farmer, who should make yearly slaughter of his beeves and other stock for their hides and pelts, throwing their carcases to the winds.—M. METCALF, Grand Rapids, Mich.—*Rural New Yorker.*



Fecundity of Hens.

It would seem a providential arrangement in behalf of man, that the domestic hen should be endowed with so great fecundity. The ordinary productiveness of a single hen is astonishing. Instances are recorded of hens laying over two hundred eggs annually, while probably one hundred and twenty would be a fair average. Undoubtedly much depends on circumstances as to the productiveness of hens. Climate has great influence in this subject, and the lodging, food and attention which is bestowed on these animals have more or less effect in promoting their fecundity. It is asserted by Buffon that a hen, well fed and attended, will produce upward of one hundred and fifty eggs in a year, beside two broods of chickens. We find statements recorded in our agricultural journals of several instances of extraordinary products of hens, which will enable us to form some judgment on the subject.

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Coming from Rockford to Bloomington—

nearly one hundred and seventy miles south—I spent a day at La Salle, in the county of the same name, situated on the Illinois river, and a real "ragged town," of some 6,000 people. The streets are dirty, the buildings dingy and old, many of them dilapidated, and the hotels poor excuses for such institutions. In a word, it looks as if "struck with death." I wish the people would sleek up, and improve the appearance of that town.

From La Salle to Bloomington, the railroad runs through an almost unbroken stretch of nature's grandest meads—the prairie. I say meads, for it is but poorly settled as yet, and in many places for miles the prairie is still robed in its native green. I understand that many who have settled on these lands purchased of the railroad company, after having paid considerable purchase money, and making some improvements, are giving them up, with the idea, that elsewhere, new purchases can be made at enough better prices to enable them to lose what they have paid and done on these lands, to their advantage. Illinois needs a large ingress of settlers, in order that in the middle portion of the State, there may be what is comprised in the good old term, neighbors.

Bloomington is a beautiful town. in the full sense of the term; its population, it is said numbers 10,000, and I should think it did. Its site is composed of sundry gentle rolls, so that drainage and variety of superficial area are easily obtained. Its scenery is delightful, its umbrageous decorations being abundant and of many years' growth. Its private residences are first-class, whilst its "seat of justice," the Court House, is hardly fit for "jail birds." The State Normal School is located here, in a very imposing edifice. There is a Young Ladies' Seminary here, and the Wesleyans have a college here also. There is one first-class hotel here, according to assumption, and the bill alone sustains it. There is, however, a very fine building just finishing for a hotel, which is four stories high—the lower one occupied by stores—stretching along one street from the corner, 135 feet, I believe, by 115 feet from the other. It is to be called the "Ashley House." This hotel will be a credit to the town.

Here are—in several Nurseries—fruit trees enough, seemingly, for all the entire West; and here I observe, too, are peach trees growing upon the farms and in the gardens, in goodly abundance, apparently in a climate mild enough for them to endure. I am told, that for the earlier and more tender varieties, the cold winds of spring conflict too successfully and too long in the season with the mild airs of summer, for them to fruit often; but this season, of the late peaches, there is an abundance.

In Ohio, with as much rain on the wheat as there has been here this harvest, it would all have grown; but the cool, brisk winds that always blow on the prairies have saved it as yet, although hard rains have fallen about three times a week.—WANDERER, Bloomington, Ill. Aug. 20, 1862.

Scientific.

On the Rising of Waters in Springs immediately before a Rain.

My attention was particularly called to this phenomenon during the close of the summer of 1852, while residing a few weeks at Rutland, amid the highlands of Vermont. In the western portion of the town, is a lofty hill, rising to the hight of about 400 feet above the Otter Creek Valley. Near the summit of the hill a small spring bursts forth, whose waters are conveyed in wooden pipes to the barnyards of two farm-houses situated on the slope of the hill, the first being about one-fourth of a mile distant from the spring, and the second nearly one-third of a mile. At the latter house I resided. The waters of the spring are not abundant, and during the summer months, frequently fail to supply the aqueduct. Such was the state of the spring when I arrived at Rutland, for the summer had been extremely dry, the brooks had been unusually low, and the drought had prevailed so long that even the famed Green Mountains had, in many places, began to wear a russet livery. The drought continued, not a drop of rain falling, when one morning a servant coming in from the barnyard, affirmed that we should soon have rain, as the water was now flowing in the aqueduct, the spring having risen several inches. The prediction was verified, for within two or three days rain fell to a considerable depth.

In a short time the spring again sunk low, and ceased to supply the acqueduct; but one cloudless morning, when there were no visible indications of rain, its waters once more rose, flowing through the entire length of the aqueduct, and ere twenty-four hours had elapsed another rain was pouring down. On inquiry it was acertained by the residents in the vicinity, that the phe

nomenon was one of ordinary occurence, and that for the last twenty years the approach of rain was expected by the rising of the spring.

Interested by these facts I sought for others of a like nature, and requested through the public prints, information on this subject from all who happened to possess it, and also upon collateral points, which are conceived to have important relations to the phenomenon. I was rewarded by the knowledge of only one additional instance, existing in Concord, Mass., where a spring which supplies a certain brook is said to rise perceptibly before a storm. Mr. William Munroe, who lives near the stream, kindly offered the following information, which is given below in nearly his own words:

"Although I have frequently been informed that the Dodge's brook, (so called) after a dry time, and when no water has run for several days would begin to run when the clouds threatened rain, but before a drop had fallen; yet I cannot say that I have ever taken much pains to investigate the fact. However, I perfectly recollect being at one time near the brook when there had been a long drought; the clouds threatened rain very soon—not a drop of water had run into the brook for some days—not a drop had fallen from the clouds, and no rain had occured in the vicinity. The course of the brook is across the road; I was standing in the road watching the brook, and then saw a small stream in its bed flowing towards the river, which is about fifteen rods distant from the road; the spring that supplies the brook is situated about half a mile from the river, and is sometimes so powerful, that I have known the brook to overflow the road for the space of several rods. I cannot say that it is an established fact that the brook always rises before a rain, but I have good reason to believe that is does."

The preceeding statements in respect to Dodge's brook are corroborated by the son of Mr. Munroe, who writes thus:—"The subject has not, as far as we are aware, fallen under the notice of any close observer of the facts you enquire about, the most that is known being this—that the bed of the brook, during a long drought, having become dry, the stream is known to start again before a rain, and the belief is that rain is to be immediately looked for on the appearance of Dodge's brook."

The cause of the phenomenon has been attributed by some to the fall of rain at the distant sources of the spring, a short time previous to their decent in the vicinity of the spring itself; but this view is doubtless erroneous, since it is altogether improbable that rain should fall at two distant localities year after year, with the same constant period of time between them, and that this interval should be such as to insure that water falling at the first locality should always arrive through subterranean channels at the second before the rain commenced. I have not been able to ascertain the state of the barmometer, either at Rutland or Concord, at the times when the phenomenon in question occurs, nevertheless, I belive that the solution will be found in in the diminished atmospheric pressure which exists before a rain. The waters of a spring remain at any given level, because the atmospheric and hydrostatic pressures combined exactly counterbalance the upward force of the jet. The spring will, therefore, rise either when the force of the jet is increased while the atmospheric pressure continues the same, or when the latter is diminished, while the former remains constant; and the elevation is greatest of all when the decrease in the pressure of the atmosphere occurs simultaneously with an increase in the strength of the jet. The rising of the water in the instances related, cannot, I think, in view of the facts detailed, be fairly attributed to any sudden augmentation of force in the current of the spring, but it is to be regarded as the result of diminished atmospheric pressure, occurring at the particular time, in perfect accordance with known meterological laws. I am not aware that it has yet been ascertained whether this phenomenon is local or general. If the latter should be found true, and the explanation given correct, we arrive at the curious discovery that the springs and fountains of the earth are natural barometers, whose indications may perhaps be worthy of notice in future physical investigations.—*Annals of Science.*

Dog Strategy.—A Newfoundland dog belonging to a workman was attacked by a small and pugnacious bull-dog, which sprang upon the canine giant, and, after the manner of bull-dogs, "pinned" him by the nose, and there hung in spite of all endeavors to shake it off. However, the big dog happened to be a clever one, and, spying a pailful of boiling tar, he hastened toward it, and deliberately lowered his foe into the hot and viscous material. The bull-dog had never calculated on such a reception, and made its escape as fast as its legs could carry it along.

Natural History.

The Great-footed Hawk.

FALCO ANATUS.—*Bonaparte.*

This hawk has by most writers been considered identical with its European analogue, the Peregrine Falcon—*F. peregrinus.* Both Wilson and Audubon took this view. Charles Bonaparte was the first who gave it a seperate name, and Cassin, in his recent work on the "Birds of California and Texas," gives a description of those points in which it differs from the latter bird.

The great-footed hawk is one of the swiftest birds known, and is one that destroys chickens ducks, and every kind of land and water-fowl under the size of a Mallard. Its rapidity is great, and in boldness it has few equals. Specimens are more plentiful now than they were thirty or forty years ago. They may be often seen in the neighborhood of Cleveland, but are not often shot. Dr. Kirtland shot a fine adult specimen at Poland, Mahoning county, several years ago, in the act of flying away with a half grown chicken. Audubon says he has often observed them flying over rivers and sheets of water in pursuit of ducks, water-hens and other water-fowl. When a bird was captured, it was borne, if not too heavy, to the land, and there devoured; and he cites a case in which one of these birds came at the report of a gun and bore off the game—a Teal—at thirty yards distant from the sportsman.

The following description of the adult is from "Cassin's Birds of California," as I have no specimen from which to give an original description: "Frontal band, white; top of the head, back, wing-coverts and rump, blueish-cinereous; every feather crossed transversly with bands of brownish-black; rump and lower part of the back lighter, and with the dark bands numerous.—Throat, sides of the neck, and upper sides of the breast, white, with a tinge of buff, without spots; other under portions same color, with a deeper shade, and with cordate or rounded spots of black on the lower breast and abdomen, and *transverse* bars of the same black on the sides, under tail coverts and tibiæ. Quills brownish black, with transverse bars of yellowish-white on their inner webs. Tail brownish-black, with transverse bars of cinereous, very pale, and nearly white on their inner webs and narrowly tipped with white.

"Cheeks with a patch of black, most narrow and clearly defined in the adult bird, and seperated from the color of the back of the head by a white space; back of the neck mixed with yellowish feathers, forming an irregular color.—Bill, light blueish horn color, paler at the base; legs and feet, fine yellow. Sexes alike.

"Female, total length nineteen to twenty inches; wing fourteen and three-fourths to fifteen inches; tail, seven and one-half to eight inches. Male and young smaller."

This bird is a little larger than the European Peregrine Falcon; and the young, the above quoted author says, differ.

The cut is taken from Audubon's plate and represents the male in immature plumage.

Habits of the Shad.

The habits of our fish have been very little attended to in this country. Our scientific men, it is true, have been very precise in their accurate classification, and in the use of their ponderous nomenclature; they have described our fishes even to the shape of a scale, or the number of thorns in the dorsal fin, but they have not condescended to note their habits, their food, their length of life, with all such particulars as would interest common readers and be of use to mankind.

No fish is more valued or more valuable than the shad; yet but few of its habits of life are known. The books are silent, and angling gives no information. It was for a long time a commonly received opinion that the shad spent the winter in the Gulf of Mexico, and then as the spring advanced and the snow ceased running, came along the coast and entered the rivers in succession. If this were true, there would be no uniformity, year after year, in the run of shad in each river. The very distinct varieties would all become intermingled. But each river has its own variety.

Those of Connecticut river have long been known as possessing superior size and flavor. The variety that seeks the Hudson as a spawning ground is easily distinguished from ours The fact of the distinctness of the varieties in each river tends to the belief that shad go no farther than the mouth of the stream in which they are hatched.

The habits of the shad are unlike those of other fish. As soon as the snow-water has ceased running, they press up the river as far as they can reach, in order to deposit their spawn. In following this instinct, they never stop for refreshment or food. Whoever found anything in the maw or stomach of a shad that would indicate the nature of its food? Whoever knew them to bite a baited hook? They do not feed from the time they enter the stream until they sink down, thin and exhausted, into the deep places at the mouth. For this purpose of nature, the shad has been preparing itself during the quiet luxuries of a winter, and has become fattened for the use of man, or, if it escape his net, for the reproduction of its species. The shad lives but a single year. It is hatched in the early summer; descends the streams as soon as large enough; feeds and fattens in the winter at the mouth of the stream; ascends in the spring to deposit its spawn; and descends to die at the bottom of the ocean. This fact accounts for the uniformity in the size of the fish. A Connecticut river shad seldom goes beyond seven pounds, and the variation in size is comparatively slight. The bass, on the other hand, which is known to live many years, varies from half a pound in weight to fifty even in our own river. It has a longer time to grow, and shows a much greater diversity of size.

These considerations have led to the conclusion, that one year was the duration of a shad's life. What was only a matter of conjecture and inference, has been lately proved by the artificial fish-breeders. Somewhere in the State of New York, one of these raisers of fish from spawn, which he fed in early life with crumbled crackers strewn upon the pond where they were kept, has proved their short hold on existence. He raised them for the purpose of supplying the very large fish he had in his tanks and ponds with food. As the science of breeding fish is more known, the habits of the different species will be more easily described.—*Hartford Courant.*

Music of the Rain-Drops.

Patter, patter, little rain-drop,
For I love to hear ye fall,
Soft, and lute-like, as the music
Of the white-robed angels' call,
As at holy hush of even
Round our path they seem to wait,
On snowy pinions, all unfolded,
Floating down from Heaven's gate.

Fall, but slowly, little rain-drops,
Not adown the pane so fast,
For I've opened wide before me
All the brightly glowing Past.
By your beating, tiny rain-drops,
I would look the pages o'er;
Come not swiftly, for I'd linger,
Through the volume as I pour—

Looking on the grassy hill-side,
Where my infant feet did tread,
While the sun-light, warmly glowing,
All around a glory shed.
Thinking of the love-lit play-ground,
'Neath the proud old forest shade,
Wildly ringing with our gladness,
Where we all together played—

Of the orchard, wildly spreading;
Of the brown cot on the hill;
Of the wild-wood and the meadow;
Of the green vale, and its rill.
Of the loved ones nightly gathered
Round the broad, bright kitchen hearth,
Where life's morning dawned so brightly,
And our love and hope had birth.

Lightly, lightly, little rain-drops,
For a shadow falleth fast
O'er the sweetly gleaming pages
Of the loved and treasured Past.
Thoughts are crowding, tears are blinding,
Cometh now a gloomy train—
Visions of the fair have left me—
Sadly fall the drops of rain.

Far away the scenes of childhood,
With the gushing loves of youth,
Far aback the joyous child-life,
With its innocence and truth.
Friends that blessed us then, are sleeping
With the death-damps on their brow;
Far away the night is keeping
Silent watch above them now.

Cares have thickened round my pathway,
Some of light and some of shade,
Gliding round me little sunbeams,
In my home *new joys* have made:
Joys no heart may know but mother's,
In their depth of hope and trust:

Then away, ye darkling shadows,
With your cankering blight and rust.

And patter, patter, little rain-drops,
Though your voice seems now subdued
To a soft, sweet, holy murmur,
And my cheek is tear-bedewed,
Yet I'll listen to you gladly,
For I'm thinking that you say,
"'Tis the Present, golden Present:
Work ye in it while 'tis day."

MRS. J. E. ALDRICH.

Fulton Co., August, 1862.

The Boy that Killed the Bird.

Nat Merlin was a noble boy, twelve years ago, when I saw him at his grand-father's; as full of sport as any boy of you all, and went bounding through the great garden-gate with his lame dog, Tip, chasing the butterflies and picking the strawberries, as if he never had a care or a trouble. But he did have trouble sometimes, that made his bright, blue eyes sad, and his merry young heart ache.

I will tell you how it was, Will Harper, if you will square yourself round on your chair, and sit up like a gentleman; I really do not like to see boys always turning themselves heels over head, when I am talking to them.

Well, as I was saying, Nat Merlin was a noble boy, his eyes were as blue as the clear morning sky, his hair golden, and his brow had not a cross wrinkle on it. He loved to play, to swim, to hunt and to work, for his dear, good grandma had taught him that work was as good as play. One day he asked his grandpa to let him have his small gun to shoot with, and he went out into the garden, with another boy, to shoot at a target. It was a nice garden, that of his grandpa, full of evergreens, shrubs, and oh! so many fruits and flowers. Grandpa loved the birds, and always told all the boys and children to let them fly about undisturbed in the garden. So the birds soon learned that they were taken care of, and came from all the fields about, built their nests, and fed their young in grandpa's garden. There were red-birds among the cedars and pines, robins in the cherry trees, wrens in the shrubbery, blue-birds and yellow-birds all about; wood-peckers tapping on the house-top, and blue-jays screaming and chattering in the old locust. Nat went out with his gun, and fired away a few times at his mark, and then he was tempted to take aim at a robin, naughty Nat; he knew his grandpa did not allow it, but he thought he surely could not hit it; so he blazed away, and down came poor robin, with a broken wing. Oh! how sorry he was the moment the wrong was done; but instead of hiding it away, as some boys I know would have done, he picked up the fluttering bird, ran straight to his grandpa, and told him all how it had happened, and how sorry he was, and the great tears rolled down his cheeks, as he saw the drops of blood falling from the robin's wounded wing.

Grandpa felt very much grieved that Nat had disobeyed his orders; he did not scold him, but he took the gun silently and laid it away, and then took the wounded bird, and killed it, to put it out of misery, and sent Nat away out of his sight.

Poor Nat! he sought the darkest and loneliest part of the garden, sat down under a pine tree, and wept bitterly; for to have his grandpa look coldly upon him, and not pat his head and call him good boy, was the hardest of punishments.

How grandpa and Nat settled the matter I do not know, for I went away to my home, and have not seen Nat from that day till to-day. Now he is a tall man, and is doing his own work in the world. A busy boy he has been all this time, I can tell you; he has not wasted his hours in foolish sauntering about, or his evenings on the street; he has studied and learned great wisdom; his father took him to foreign lands, but he did not come home a spoiled boy, that had only seen the vices and follies; he had been taught to draw pictures with his pencil and to paint them, and it was a higher pleasure for him to sketch a beautiful landscape to bring home to his grandparents, than to fish and hunt, or play games. So he painted all the curious things he could see, and now they ornament his father's parlors, and visitors look at them and are made happier by them.

Do you know, little one, how much longer work lasts than play? If Nat had played all those hours there would have been no beautiful pictures to delight his friends. He learned to talk and read Spanish and French, and do a great many other things, and now he is an artist, and by his beautiful work earns his living. What will you be, dear little boy and girl, twelve years hence? Nothing, if you don't persevere in trying.—AUNT FANNY.

Peace can do a good deal toward making a gentleman, but war is more likely to finish him.

Rob a man of his *life*, and you'll be hung; rob him of his *living*, and you may be applauded.

Why is a good cook like a woman of fashion? Because she dresses well.

A pretty female artist can draw the men equally with a brush and blush.

What fruit does a newly-married couple mostly resemble? A green pear.

One who is half-man, half-dog, will bow to the rich and *bow-wow* to the poor.

A woman may be indifferent to courts, courtiers, and courtesy, but not to courtship.

There is a good-natured bachelor, in Williamsburg, so generous, that, poor fellow, he would give even his heart away, if he could only find an interesting object to take it.

Too much preciseness and solemnity in pronouncing what one says in common conversation, as if one was preaching, is generally taken for an indication of self-conceit and arrogance.

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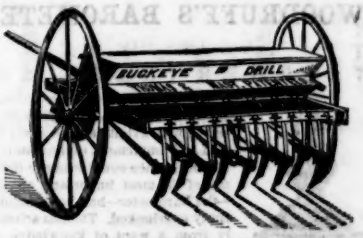

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